CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Retention of Consultant for Preparation of Supplemental Environmental Impact Report for White Slough Water Pollution Control Facility Expansion Project

MEETING DATE: July 17, 1991

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council authorize retaining the firm of Whitley, Burchett and Associates to prepare a supplemental Environmental Impact Report (EIR) for the White Slough Expansion Project.

BACKGROUND INFORMATION: The California Regional Water Quality Control Board staff is presently preparing a National Pollutant Discharge Elimination System (NPDES) permit for our White Slough Water Pollution Control Facility Expansion Project. The present draft NPDES permit prepared by the Regional Board is proposing a 10/10 mg/L for BOD and suspended solids for all White Slough discharges. The City's present discharge requirements are 20/20 mg/L for BOD and suspended solids in the summer months, and 30/30 mg/L for BOD and suspended solids in the winter months.

The Regional Board has indicated that they are requiring the 10/10 mg/L discharge requirement because there was a statement in the City's final EIR document that indicated that, "Installation of the proposed clarifiers and other components, in conjunction with aeration system improvements recently completed, would allow the Water Pollution Control Facility to produce domestic effluent having 10 mg/L or less of BOD and suspended solids more than 90 percent of the time." It is felt that when our new plant expansion comes on-line, we will initially be able to meet the 10/10 requirement; however, as the plant approaches 80% capacity (approximately 7 mgd), the City would have to construct sand filters at a cost of $1.5 to $3 million plus a substantial increase in annual maintenance costs in order to meet the 10/10 mg/L requirement. We have been meeting and negotiating with the Regional Board staff on this item for some time. The Regional Board's legal counsel has indicated that if we provide additional CEQA documentation on a lesser discharge requirement, they would be able to modify their proposed 10/10 mg/L discharge requirement.

Max Burchett and my staff met with the Regional Board staff to discuss what additional CEQA documentation was needed and the requirements for changing the 1988 EIR. Attached is a proposal from Whitley, Burchett and Associates which accomplishes this task with the minimum amount of effort. The cost of this work would be approximately $36,000. The proposal submitted has been reviewed by Lodi's Community Development Director and it is felt that the procedure proposed is

APPROVED: _____
THOMAS A. PETERSON
City Manager

recycled paper

CWSWPC24/TXTW.02M (CO. COM) July 5, 1991

appropriate and the employee hours submitted are in line. **I** feel strongly that the City should do whatever is possible to reduce the discharge requirements in the proposed **NPDES** permit. **I** would therefore recommend that the City Council approve the retention **of** Whitley, Burchett and Associates to accomplish the work shown in their attached proposal.

FUNDING: 17.2 Wastewater Capital Reserve Fund

Jack L. Ronsko
Public Works Director

JLR/mt

Attachment

cc: City Attorney
Water/Wastewater Superintendent

WHITLEY, BURCHETT
and Associates, Inc.

June 12, 1991

City of Lodi
City Hall
221 West Pine Street
Lodi, California 95241

Attention: Jack Ronsko, Public Works Director
Fran Forkas, Water/Wastewater Superintendent

Subject: Proposed Scope and Budget
White Slough WPCF Supplemental EIR

Gentlemen:

Based on our meeting with the staff of the Central Valley Regional Water Quality Control Board, I have prepared a proposed scope of work and budget for a supplemental EIR for the White Slough WPCF expansion project. This work will be carried out by Whitley, Burchett and Associates, Inc.(WBA), in association with EIP Associates of San Francisco.

We have tried to tailor a scope of work with the minimum effort possible to develop the information needed by the RWQCB staff to finalize waste discharge requirements for White Slough WPCF. We believe that the proposed technical analyses, based on statistical analysis of the city's self-monitoring data, information from the literature and theoretical calculations of future water quality conditions will be sufficient. The objective of the analyses will be to determine if the discharge of 20/20 effluent at the design flow of 8.5 mgd will have a significant impact on the quality of the receiving waters. It will also determine if the expanded facilities will have the capacity to store or land dispose of the treated effluent whenever the dissolved oxygen concentration in the receiving waters falls below 5.0 mg/L, from whatever cause.

We believe that the time schedule presented in our letter of May 7th remains reasonable and will permit completion of the technical and environmental work necessary to support the required modifications to the EIR.

Review documents, meet with RWQCB staff and complete Notice of Preparation	2 weeks
Public review and comment period for NOP and technical studies and preliminary environmental	6 weeks (concurrently)
Complete Draft EIR (including city staff review)	6 weeks
Public review and comment period for Draft EIR	6 weeks
Prepare Final EIR (including city staff review)	4 weeks
Total time	24 weeks

The proposed scope of work, estimated labor requirements and budget are attached for your review and approval. Estimated labor costs are included at normal WBA and EIP billing rates. Reimbursible expenses include printing, phone, fax, postage and other direct project related expenses at cost. Mileage would be billed at $0.25 per mile. If the City prefers, a "not-to-exceed" fee of $35,800 (including a contingency allowance of 10%), would be acceptable. Billings would not exceed this amount without prior approval of the city.

We will be pleased to meet with you and your staff to discuss the details of this proposal at your convenience. Please call me if you have any questions or to arrange any necessary meetings. We look forward to your favorable consideration of this proposal.

Very truly yours,

WHITLEY, BURCHETT and ASSOCIATES, Inc.

Max E. Burchett, P.E.

cc: John Davis, EIP Associates

City of Lodi
White Slough WPCF Supplemental EIR

PROPOSED SCOPE OF WORK

Objective:

To determine whether there will be a significant impact on the beneficial uses of the receiving waters if revised Waste Discharge Requirements are adopted for the expanded White Slough Water Pollution Control Facility (WPCF). Revised requirements would be as follows:

Period	BOD5	Suspended Solids
1 June - 15 October	20 mg/L	20 mg/L
16 October - 31 May	30 mg/L	30 mg/L

Methodology:

The analysis of current and potential future impacts on the receiving waters will be carried out in four parts:

1. Quantify existing conditions in the receiving waters
2. Quantify existing and future effluent characteristics
3. Predict impact of future discharges on the receiving waters
4. Evaluate existing effluent storage and land disposal facilities to accomodate design flow if receiving water D.O. falls below 5.0 mg/L.

The results of the analytical work will be used to prepare a Supplemental EIR for the current White Slough WPCF expansion and upgrading project. The revised EIR will provide the basis for the adoption of final waste discharge requirements for the White Slough WPCF by the Central Valley Regional Water Quality Control Board

Task Descriptions:

The following tasks will be performed to prepare the required supplemental EIR:

Task 1 - Existing Receiving Water Conditions. Three separate analyses will be carried out for this task.

The first analysis will quantify the existing conditions in the receiving waters resulting from the current effluent discharges from the White Slough treatment plant. Approximately 4 years of existing self-monitoring data will be analyzed for dissolved oxygen levels in Dredger Cut and Bishop Cut. The data will be statistically characterized for mean, standard deviation and frequency of occurrence.

Secondly, a correlation between existing effluent BOD and receiving water D.O. concentrations will be developed, if possible.

The third analysis will utilize the results of the recently completed dilution study to assess the impact of physical dilution on the concentration of BOD, suspended solids and D.O in the receiving waters. Comparison of the results of the BOD/D.O. correlations from above with the physical dilution estimates will provide an estimate of the effect of oxygen uptake in the receiving

waters, the so-called "oxygen sag" effect. In this analysis, any depression of D.O. greater than would be predicted by physical dilution alone can be attributed to the exertion of BCD in the receiving waters.

Task 2 - Existing and Future Effluent Characteristics. Existing and future effluent characteristics will be statistically evaluated in this **usk** to provide the basis for assessing current and future impacts of the White Slough WPCF discharge on the receiving waters.

Actual White Slough WPCF effluent quality data for **a** minimum of two years will be evaluated for mean, standard deviation and frequency of occurrence. The results of this analysis will be compared with published data **from** the literature for other activated sludge plants similar to White Slough **WPCF.**

Future effluent quality will be predicted using the above published data and design criteria for the expanded ***White*** Slough **WPCF.** The results of the analysis will be presented **as** a frequency distribution of expected future effluent BOD and suspended solids concentrations and mass emission loadings on the receiving waters.

Task 3 - Estimated Impact of Future Discharges on Receiving Waters. This task will consist of two separate analyses.

First, the results of the previous tasks will be **used** to predict the future impact of the treated effluent on **the** receiving waters. Using projections of the **future** effluent characteristics (Task 2) **and** the assessment of the impact of the current discharge on the receiving waters (Task 1), it should **be** possible to estimate the impact of the **future** discharge on the receiving waters.

The **results** of this analysis will be checked by performing theoretical calculations of the effect of the **future** discharge **on** the D.O. of the receiving waters. This analysis will **be** the equivalent of the classical "oxygen sag" analysis, except that it will be **performed** using steady-state equations from the literature developed for tidal estuaries. This analysis **will be carried** out under the direction of Dr. George Tchobanoglous, Professor of Civil Engineering at the University of California, Davis. Values of the theoretical constants for dispersion of constituents in the tidally influenced receiving waters will be derived **from** the actual field data taken during the recent **Dredger** Cut dilution study.

If it is found that a significant impact **will** result **from** the use of the revised waste discharge requirements, the allowable concentrations of BOD and suspended solids to prevent adverse impacts **will** be estimated.

Task 4 - Evaluate Existing Effluent and Land Disposal Facilities. The results of the above analyses will be compared with design criteria in existing documents (*e.g.* contract documents, planning and design reports, existing EIR, etc.) to determine if the existing effluent storage and land disposal facilities **are** adequate to accomodate future design flow rates.

Task 5 - Prepare Supplemental EYR. The results from the above analyses will be used by EKP Associates to prepare the required supplemental EIR. The **work** is divided into five subtasks, **as** described below.

Subtask 5.1 - Prepare Notice of Preparation. **Many** governmental agencies will be involved in the environmental process, some as permitting agencies and others as reviewers. When **an** EIR is to ***be*** prepared **OR *a*** proposed project or action, it is normal to begin the environmental review process by sending a Notice of Preparation **(NOP)** to all parties, including governmental agencies. **A NOP will** be prepared by **EIP,** together with **an** Initial Study. The **NOP** will include a brief description of the proposed action, and an Initial Study will be included indicating the environmental elements that might be significantly affected by the proposed action. The NOP and

Initial Study will be sent to the State Clearinghouse and a mailing list of agencies, organizations and individuals developed by the City of Lodi for the original EIR. Recipients of the NOP have 30 days within which to respond with comments and suggestions.

Subtask 5.2 - Review Responses to the NOP. EIP Associates will review the responses to the NOP to ensure that all issues are addressed in the Supplemental Draft EIR. Although contacts with government agencies will be made formally through the NOP process as described above, it is usually worthwhile to meet with certain agency staff members to discuss their concerns. The following agencies will be contacted directly:

- California Regional Water Quality Control Board, Central Valley Region
- California Department of Fish and Game
- San Joaquin County Health, Planning and Public Works Departments

In addition to the government agencies, it may also be useful to establish lines of communication with other interested parties.

Subtask 5.3 - Prepare Administrative Supplemental Draft EIR. EIP staff will utilize the data gathered from the results of the studies conducted in Tasks 1, 2, 3 and 4 above to prepare an Administrative Supplemental Draft Environmental Impact Report (ASDEIR) for the proposed action. The analysis will focus on the potential effects of the proposed discharge on receiving water quality, particularly biochemical oxygen demand, suspended solids and dissolved oxygen. Three copies of the ASDEIR will be submitted for review by the City of Lodi.

Subtask 5.4 - Prepare Supplemental Draft EIR. Following City review of the ASDEIR, EIP will prepare and publish the Supplemental Draft EIR (SDEIR). Fifty copies of the SDEIR will be printed. EIP will be responsible for distributing the SDEIR. A Notice of Completion will be filed with the State Office of Planning and Research.

Subtask 5.5 - Prepare Supplemental Final EIR. Responses to all written comments on the SDEIR will be prepared. It is proposed that one meeting be held by the project team to review comments received, discuss approaches and methods to resolve sensitive or controversial issues, and review the draft responses. EIP will prepare the Response to Comments document, which together with the SDEIR will constitute the Supplemental Final EIR (SFEIR). Fifty copies of the Response to Comments document will be printed.

ESTIMATED LABOR REQUIREMENTS AND BUDGET

The labor requirements and budget for preparing the supplemental EIR are estimated as follows:

Task No.	Description	Estimated Labor Requirements, hours: Project Manager	Project Engineer	Special Consultants: Engineering	Special Consultants: EIR	Total
1	Existing Receiving Water Conditions					
	a. Existing D.O. data	4	16			20
	b. BOD/D.O. correlation	4	8			12
	c. "Oxygen sag" effect	4	8			12
2	Existing & Future Effluent Charateristics					
	a. Existing effluent quality	4	16			20
	b. Future effluent quality	4	8			12
3	Estimated Impact of Future Discharges on Receiving waters-					
	a. Statistical analysis	4	12			16
	b. Steady-state calculations	6	28	16		50
4	Evaluate existing effluent storage and land disposal facilities	2	8			10
5	Prepare Supplemental EIR					
	a. Notice of Preparation	2			10	12
	b. Review responses to NOP	2			16	18
	c. Prepare Administrative Supplemental Draft EIR	4			94	98
	d. Prepare Supplemental Draft EIR	2			32	34
	e. Prepare Supplemental Final EIR	2			68	70
5	Management	8				8
	Total hours	**52**	**104**	**16**	**220**	**392**
	Unit cost, $/hr	120	70	100		
	Total labor cost, $	6,240	7,800	1,600	15,360*	31,000
	Expenses, $					1,600
	Total budget, $					**32,600**

* Includes markup of 7% to cover WBA E&O insurance premium for subcontractor work.

SCHEDULE OF FEES

(Effective January 1, 1991)

Services described herein shall be provided on a time-and-materials basis, unless other methods of compensation are identified for specific task authorizations. The following rates shall be in effect through December 31,1991, at which time they will be subject to change.

Labor Category	Normal Rate For Employees $/Hour
Partner	$ 120.00
Supervising Engineer	$ 100.00
Principal Engineer	$ 90.00
Engineer	$ 70.00
Assistant Engineer	$ 50.00
Draftsperson	$ 45.00
Clerical	$ 40.00

Direct costs, such as reproduction, postage, telephone, printing, etc. will be billed at cost. Transportation will be billed at cost or 25¢ per mile, whichever is less. Subconsultants will be billed at cost plus 7 percent to cover the premium cost for WBA E&O insurance for subcontractors.

WHITLEY, BURCHETT
and Associates, Inc.

June 12,1991

City of Lodi
City Hall
221 West Pine Street
Lodi, California 95241

Attention: Jack Ronsko, Public Works Director
Fran Forkas, Water/Wastewater Superintendent

Subject: Proposed Scope and Budget
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Gentlemen:

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City of Lodi
White Slough WPCF Supplemental EIR

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